**Table 1: PRISMA Checklist**

| **Section and Topic** | **Item #** | **Checklist item** | **Location where item is reported** |
| --- | --- | --- | --- |
| **TITLE** | | |  |
| Title | 1 | Identify the report as a systematic review. | 1 |
| **ABSTRACT** | | |  |
| Abstract | 2 | See the PRISMA 2020 for Abstracts checklist. | 2 |
| **INTRODUCTION** | | |  |
| Rationale | 3 | Describe the rationale for the review in the context of existing knowledge. | 3 |
| Objectives | 4 | Provide an explicit statement of the objective(s) or question(s) the review addresses. | 4 |
| **METHODS** | | |  |
| Eligibility criteria | 5 | Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses. | 4-5 |
| Information sources | 6 | Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted. | 5 |
| Search strategy | 7 | Present the full search strategies for all databases, registers and websites, including any filters and limits used. | 5 |
| Selection process | 8 | Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process. | 5-6 |
| Data collection process | 9 | Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process. | 6 |
| Data items | 10a | List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect. | 7-8 |
| 10b | List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information. | 8 |
| Study risk of bias assessment | 11 | Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process. | 8 |
| Effect measures | 12 | Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results. | 6-7 |
| Synthesis methods | 13a | Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)). | 8 |
| 13b | Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions. | 7 |
| 13c | Describe any methods used to tabulate or visually display results of individual studies and syntheses. | 8 |
| 13d | Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used. | 6-7 |
| 13e | Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression). | 6-7 |
| 13f | Describe any sensitivity analyses conducted to assess robustness of the synthesized results. | 6-7 |
| Reporting bias assessment | 14 | Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases). | 8 |
| Certainty assessment | 15 | Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome. |  |
| **RESULTS** | | |  |
| Study selection | 16a | Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram. | 8 |
| 16b | Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded. | 8 |
| Study characteristics | 17 | Cite each included study and present its characteristics. | 8 |
| Risk of bias in studies | 18 | Present assessments of risk of bias for each included study. | 8 |
| Results of individual studies | 19 | For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots. | 8 |
| Results of syntheses | 20a | For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies. | 9 |
| 20b | Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect. | 10-11 |
| 20c | Present results of all investigations of possible causes of heterogeneity among study results. | 10-11 |
| 20d | Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results. | 10-11 |
| Reporting biases | 21 | Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed. | 10-11 |
| Certainty of evidence | 22 | Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed. | 10-11 |
| **DISCUSSION** | | |  |
| Discussion | 23a | Provide a general interpretation of the results in the context of other evidence. | 11-12 |
| 23b | Discuss any limitations of the evidence included in the review. | 13 |
| 23c | Discuss any limitations of the review processes used. | 13 |
| 23d | Discuss implications of the results for practice, policy, and future research. | 14 |
| **OTHER INFORMATION** | | |  |
| Registration and protocol | 24a | Provide registration information for the review, including register name and registration number, or state that the review was not registered. | PROSPERO |
| 24b | Indicate where the review protocol can be accessed, or state that a protocol was not prepared. | PROSPERO |
| 24c | Describe and explain any amendments to information provided at registration or in the protocol. | NONE |
| Support | 25 | Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review. | NONE |
| Competing interests | 26 | Declare any competing interests of review authors. | NONE |
| Availability of data, code and other materials | 27 | Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review. | Other Materials |

**Table 2: Search Strategy**

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| --- |
| **Ovid MEDLINE(R) ALL <1946 to July 20, 2022>**  1 exp Venous Thromboembolism/ or VTE.mp. or exp Thromboembolism/ or exp Venous Thrombosis/ 117948  2 exp Post-Exposure Prophylaxis/ or prophylaxis.mp. or exp Pre-Exposure Prophylaxis/ 119950  3 prevention.mp. or exp Secondary Prevention/ or exp Primary Prevention/ or exp Tertiary Prevention/ 1927721  4 2 or 3 1978040  5 1 and 4 31189  6 prostatectomy.mp. or exp Prostatectomy/ 45963  7 exp Surgery, Computer-Assisted/ or exp Robotics/ or exp Robotic Surgical Procedures/ or exp Urologic Surgical Procedures/ or robotic surgery.mp. 294112  8 6 and 7 35678  9 laparoscopic.mp. or Laparoscopy/ 150036  10 exp Postoperative Period/ or exp Postoperative Care/ or exp Postoperative Complications/ or postoperative.mp. 1022302  11 8 or 9 182151  12 10 and 11 65067  13 5 and 12 **317** |
| **Embase <1974 to 2022 July 20>**  1 exp thromboembolism/ or exp venous thromboembolism/ or VTE.mp. or exp deep vein thrombosis/ 590089  2 prophylaxis.mp. or exp post exposure prophylaxis/ or exp prophylaxis/ or exp pre-exposure prophylaxis/ 1161540  3 exp primary prevention/ or exp thrombosis prevention/ or exp prevention/ or exp tertiary prevention/ or prevention.mp. or exp secondary prevention/ 2886408  4 2 or 3 2917157  5 1 and 4 118697  6 exp robot-assisted prostatectomy/ or exp prostatectomy/ or prostatectomy.mp. 72216  7 robotic surgery.mp. or exp robot assisted surgery/ 27568  8 6 and 7 5249  9 exp prostatectomy/ or prostatectomy.mp. 72216  10 exp laparoscopic surgery/ or laparoscopic.mp. 226885  11 exp laparoscopy/ or exp hand assisted laparoscopy/ 183897  12 10 or 11 265184  13 9 and 12 8716  14 postoperative.mp. or exp postoperative care/ or exp postoperative complication/ or exp postoperative period/ 1558398  15 8 or 13 11978  16 5 and 14 and 15 **75** |
| **Cochrane**  Search Name: VTE prophylaxis post-prostatectomy  Last Saved: 21/07/2022 09:55:27  Comment:  ID Search  #1 VTE  #2 MeSH descriptor: [Venous Thromboembolism] explode all trees  #3 MeSH descriptor: [Thromboembolism] explode all trees  #4 MeSH descriptor: [Venous Thrombosis] explode all trees  #5 #1 or #2 or #3 or #4  #6 prophylaxis  #7 MeSH descriptor: [Post-Exposure Prophylaxis] explode all trees  #8 MeSH descriptor: [Post-Exposure Prophylaxis] explode all trees  #9 prevention  #10 MeSH descriptor: [Primary Prevention] explode all trees  #11 MeSH descriptor: [Secondary Prevention] explode all trees  #12 MeSH descriptor: [Tertiary Prevention] explode all trees  #13 #6 or #7 or #8 or #9 or #10 or #11 or #12  #14 #5 and #13  #15 prostatectomy  #16 MeSH descriptor: [Prostatectomy] explode all trees  #17 #15 or #16  #18 robotic surgery  #19 MeSH descriptor: [Robotics] explode all trees  #20 MeSH descriptor: [Robotic Surgical Procedures] explode all trees  #21 MeSH descriptor: [Surgery, Computer-Assisted] explode all trees  #22 MeSH descriptor: [Urologic Surgical Procedures] explode all trees  #23 #18 or #19 or #20 or #21 or #22  #24 #17 and #23  #25 laparoscopic  #26 MeSH descriptor: [Laparoscopy] explode all trees  #27 #25 or #26  #28 #17 and #27  #29 postoperative  #30 MeSH descriptor: [Postoperative Care] explode all trees  #31 MeSH descriptor: [Postoperative Complications] explode all trees  #32 MeSH descriptor: [Postoperative Period] explode all trees  #33 #29 or #30 or #31 or #32  #34 #24 and #28 and #14 and #33 **(1)** |
| **ClinicalTrials.gov**  prostatectomy | venous thromboembolism prevention **(1)** |
| **International Clinical Trials Registry Platform (ICTRP)**  prostatectomy and VTE **(0)**  prostatectomy and venous thromboembolism **(0)** |

**Table 3: Clinicopathological Characteristics**

|  |  |
| --- | --- |
| **Mean PSA (7 Studies)** | 7.20 |
| **Staging (7 Studies)** | |
| T1c | 26.00% |
| T2 | 52.51% |
| T3a | 14.90% |
| T3b or 4 | 02.81% |
| **Gleason Score (8 studies)** | |
| 6 | 51.98% |
| 7 | 37.06% |
| 8-10 | 10.12% |
|  |  |

**Table 4: Venous Thromboembolism (VTE) Risk Stratification in Surgical Patients**

|  |  |
| --- | --- |
| **Level of**  **risk** | **Defining factors** |
| **Low** | Minor surgery in patients < 40 yr old with no additional risk factors |
| **Moderate** | Minor surgery in patients with additional risk factors  Surgery in patients 40–60 years with no additional risk factor |
| **High** | Minor surgery in patients > 60 yr  Major surgery in patients 40-60 years with additional risk factors  (Prior VTE, cancer, hypercoagulable state) |
| **Highest** | Surgery in patients with multiple risk factors (Age>40 years, cancer, prior VTE) |
| DVT = deep vein thrombosis, PE = pulmonary embolism. | |